AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for replicating data from a storage device, comprising:

performing at least one read operation with respect to at least one data block on a storage device based, at least in part, on information in a file system associated with the storage device;

recording one or more I/O accesses performed with respect to the storage device in association with the at least one read operation;

identifying, based on the recorded I/O access information, one or more data blocks on the storage device that contain valid data; and

replicating the data blocks that contain valid data.

2. (previously presented) The method according to claim 1, wherein the at least one read operation includes reading metadata associated with at least one file on the storage device.

3. (previously presented) The method according to claim 2, wherein reading the metadata includes reading one or more of the following: a name of a file, access permissions to a file, a date of creation of a file, or dates of modification of a file.

4. (original) The method according to claim 1, further comprising cleaning a cache on a computer associated with the storage device before performing any read operations.

5. (currently amended) A method for replicating data from a storage device associated with a computer, comprising:

cleaning a cache on a computer associated with the storage device;

performing at least one read operation with respect to at least one data block on a storage device based, at least in part, on information in a file system associated with the storage device;

causing the storage device to record one or more I/O accesses performed with respect to the storage device in association with the at least one read operation;

identifying, based on the I/O access information recorded by the storage device, one or more data blocks on the storage device that contain valid data; and

replicating the data blocks that contain valid data.

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (currently amended) A system to identify data blocks on a storage device that contain valid data, comprising:

a storage device configured to store data in at least one data block;

~~a first~~ at least one processor configured to:

perform at least one read operation with respect to the at least one data block on ~~a~~ the storage device based, at least in part, on information in a file system associated with the storage device; ~~and~~

~~a second processor configured to:~~

record one or more I/O accesses performed with respect to the storage device in association with the at least one read operation;

~~wherein the first processor is further configured to:~~

identify one or more data blocks on the storage device that contain valid data based, at least in part, on the recorded I/O access information; and

replicate the data blocks that contain valid data.

11. (previously presented) The system according to claim 10, wherein the at least one read operation includes reading metadata associated with at least one file on the storage device.

12. (previously presented) The system according to claim 11, wherein reading the metadata includes reading one or more of the following: a name of a file, access permissions to a file, a date of creation of a file, or dates of modification of a file.

13. (original) The system according to claim 10, further comprising a computer associated with the storage device.

14. (currently amended) The system according to claim 13, wherein the ~~first~~ at least one processor resides on the computer.

15. (currently amended) The system according to claim 13, wherein the ~~first~~ at least one processor is further configured to:

clean a cache on the computer before performing any I/O accesses.

16. (currently amended) The system according to claim 13, wherein the ~~second~~ at least one processor is further configured to:

manage the storage operations of the computer.

17. (previously presented) The system according to claim 10, wherein the ~~second~~ at least one processor comprises a filter driver.

18. (currently amended) An apparatus to identify data blocks on a storage device that contain valid data, comprising:

a storage device configured to store data in at least one data block;

a first processor configured to:

record I/O accesses performed with respect to the storage device in association with read operations ; and

a second processor configured to:

perform at least one read operation with respect to the at least one data block on a storage device based on information in a file system associated with the storage device; and

instruct the first processor to record one or more I/O accesses performed with respect to the storage device in association with the at least one read operation;

wherein the first processor is further configured to:

identify one or more data blocks on the storage device that contain valid data based, at least in part, on the I/O access information recorded by the first processor; and

replicate the data blocks that contain valid data.

19. (previously presented) The apparatus according to claim 18, wherein the second processor is further configured to:

clean a cache on a computer associated with the storage device before performing any I/O accesses.

20. (previously presented) The apparatus according to claim 18, wherein the at least one read operation includes reading metadata associated with at least one file on the storage device.

21. (previously presented) The apparatus according to claim 20, wherein reading the metadata includes reading one or more of the following: a name of a file, access permissions to a file, a date of creation of a file, or dates of modification of a file.

22. (previously presented) The apparatus according to claim 18, wherein the second processor comprises a software program.

23. (previously presented) The apparatus according to claim 18, wherein the second processor comprises a filter driver.

24. (previously presented) The apparatus according to claim 18, wherein the second processor is part of a storage management system.

25. (previously presented) The method of claim 1, wherein the file system is structured on a file-level.

26. (previously presented) The method of claim 5, wherein the at least one read operation includes reading metadata associated with one or more files on the storage device.

27. (previously presented) The method according to claim 26, wherein reading the metadata includes reading one or more of the following: a name of a file, access permissions to a file, a date of creation of a file, or dates of modification of a file.

28. (previously presented) The method according to claim 1, further comprising:

generating a list of the one or more data blocks that contain valid data; and

storing the list and the replicated data blocks in a memory.

29. (currently amended) A method to identify data blocks on a storage device that contain valid data, comprising:

performing at least one read operation with respect to at least one data block on a storage device based on a file system associated with the storage device;

recording one or more I/O accesses performed with respect to the storage device in association with the at least one a read operation; and

generating a list of data blocks on the storage device that contain valid data based, at least in part, on the recorded I/O access information.

30. (previously presented) The method of claim 29, wherein the file system is associated with a virtual storage device used to manage storage of data on the storage device.

31. (previously presented) The method of claim 29, further comprising:

storing the list in a memory.

32. (currently amended) A system to identify data blocks on a storage device that contain valid data, comprising:

a storage device configured to store data in at least one data block;

~~a first~~ at least one processor configured to:

perform at least one read operation with respect to the at least one data block on a storage device based on a file system associated with the storage device; ~~and~~

~~a second processor configured to:~~

record one or more I/O accesses performed with respect to the storage device in association with a the at least one read operation; and

~~wherein the first processor is further configured to:~~

generate a list of data blocks on the storage device that contain valid data based at least in part on the recorded I/O access information.

33. (previously presented) The system of claim 32, wherein the file system is associated with a virtual storage device used to manage storage of data on the storage device.

34. (currently amended) The system of claim 32, wherein the ~~first~~ at least one processor is further configured to:

store the list in a memory.

35. (new) The system of claim 10, wherein the at least one processor comprises a first processor and a second processor, wherein:

the first processor is configured to:

perform at least one read operation with respect to the at least one data block on the storage device based, at least in part, on information in a file system associated with the storage device;

identify one or more data blocks on the storage device that contain valid data based, at least in part, on the recorded I/O access information; and

replicate the data blocks that contain valid data; and

the second processor is configured to:

record one or more I/O accesses performed with respect to the storage device in association with the at least one read operation.

36. (new) The system of claim 10, wherein the at least one processor comprises at least one computer.

37. (new) The system of claim 36, wherein the at least one processor comprises:

a first software program operating on the computer; and

a second software program operating on the computer.

38. (new) A method for replicating data from a storage device, comprising:

receiving a message to replicate data stored on a storage device;

in response to the message, storing in a file information identifying one or more data blocks on the storage device containing valid data; and

replicating one or more data blocks stored on the storage device, based, at least in part, on the information in the file.

39. (new) The method of claim 38, further comprising:

recording, in the file, one or more I/O accesses performed by the storage device.

40. (new) The method of claim 39, wherein the message comprises a request to record I/O accesses performed by the storage device.

41. (new) The method of claim 40, further comprising:

receiving a second message to stop recording I/O accesses performed by the storage device.

42. (new) A system for replicating data from a storage device, comprising:

a storage device configured to store data, the storage device having a file system associated therewith;

a first processor configured to:

transmit a first message to replicate data stored on the storage device; and

identify one or more data blocks containing valid data on the storage device, based, at least in part, on the file system;

read each identified data block, until all data blocks containing valid data have been identified and read;

a second processor configured to:

receive the message;

record one or more I/O accesses performed by the storage device while the identified data blocks are being read, in response to the message; and

replicate at least one data block stored on the storage device, based on the recorded I/O accesses.